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Certificate of Authorization No. E-00001307

700 East Gregory Street

Re: Residential Property  
Claim No: 5113496077  
Insured: Allstate Insurance Company CAT  
Subject: Report of Findings  
RCG File No: 5220849

Dear Mr. Gutzweiler:

Mr. Kuntzman reported that their residency was destroyed by Hurricane Katrina on August 29, 2005. The residency was located at 217 Fenton St, Vicksburg, MS.

Rimkus Consulting Group, Inc. was retained by Mr. Jim McCowin on behalf of UCAA to evaluate the reported damage to the residential structure. We were specifically asked to determine structural damage caused by the hurricane winds verses structural damage caused by the associated storm surge and waves. Mr. Jerome A. Quintero performed our visual inspection of the property on October 6, 2005 with the owner present. Weather data used during our evaluation was obtained from Compu-Weather, Inc. and the National Oceanic and Atmospheric Administration (NOAA).

### CONCLUSIONS

The following conclusion were made after our site visit and a review of the photographs. Our opinions are as follows:

1. Hurricane Katrina demolished the superstructure of the residency, such that only the slab on grade remained.
2. High wind forces and flooding/wave forces from Hurricane Katrina were both of sufficient magnitude to cause structural damage to the structure.
3. There was insufficient physical evidence to determine the proportion of wind verses storm surge that destroyed the structure.

## INTRODUCTION

The residency was a one story superstructure and a substructure of concrete slab on grade. The exterior wall consisted of brick and the roof consisted of asphalt shingles. For the purposes of this report, the front of the residency was referenced to face east.

Hurricane Katrina was one of the strongest storms to impact the coast of the United States during the last 100 years. After crossing South Florida and entering the Gulf of Mexico, Katrina began to strengthen reaching category 5 strength hurricane and on August 23, 2005, about 250 miles south of the mouth of the Mississippi River. Katrina's winds reached their peak intensity of 175 mph winds and the pressure fell to 902 mb.

According to published weather data, the highest wind gusts measured along the Mississippi coast on August 23, 2005, were 90 mph at a Keesler Air 3 in Biloxi, 80 mph in Gulfport, and 50 mph at Pascagoula. Winds as high as 125 mph likely occurred near the point of landfall near the Louisiana/Mississippi border, and winds likely in excess of 100 mph occurred along the entire Mississippi coast. Preliminary data from NOAA estimated winds in the Gulfport area to be 100 to 120 mph.

Following the wind forecast, a report of 30 feet above sea level at Hancock. flooding. Along the Mississippi coast, there were reports of 11.07 feet at Green Pass, 12.16 feet at Pascagoula, 26 feet at the Mississippi River at Vicksburg, and a report of 30 feet above sea level at Hancock.

## OBSERVATIONS

During the course of our site visit, we observed the following:

- All the homes located on north side of Farrar St. were destroyed (Photo 3),
- Owners roof was located across the street and to the southeast (Photo 4),
- There was minor evidence of wind activity (Photo 5),
- Surge level was measured east of property and across the street (Photo 6),
- Field measurements of the scrape marks on the tree indicated that the storm surge level reached approximately 15.6 feet above the ground.
- There was debris at the site and adjoining properties.

## ANALYSIS

Weather data showed that wind speeds in the Gulfport region were approximately 100 to 130 mph, and that a storm surge of approximately 25-feet occurred. Since wind forces from Hurricane Katrina were estimated in the range of 130 mph, we cannot rule out that lateral forces from wind loads exceeded the structural design. The lateral

pressure from wave action typically exceeds wind loads. A 130 mph wind will produce a lateral pressure of approximately 43 psf whereas a 4-foot height of water will produce a maximum hydrostatic pressure of over 200 psf, not including dynamic lateral forces from wave action.

Based on the conditions stated above, both the wind and surge components of Hurricane Katrina were capable of damaging the structure. With only the slab on grade remaining after the hurricane, there was insufficient hydrostatic pressure to determine the extent and proportion of damage caused by the hurricane winds versus the associated surge/waves.

This report was prepared for the exclusive use of Allstate COT and was not intended for any other purpose. Our report was based on information available to us at the time. Should additional information become available, we reserve the right to determine the impact, if any. The new information may have an influence on our opinions and conclusions, and could cause us to revise our conclusions. The information necessary to warrant our conclusions is not available to you upon request. The information is not available for our use, and we do not warrant its accuracy.

Thank you for allowing us to conduct this investigation. If you require any additional assistance, please call.

Sincerely,

RIMKUS CONSULTING GROUP, INC.

Jerome A. Quintero  
Consultant

Corey D. Green, P.E.  
MS Reg. Eng. No. Number  
Senior Consultant

Attachments: Photographs